

REMARKS

Favorable reconsideration of this application is respectfully requested in view of the claim amendments and following remarks.

Status of Claims

Claims 1-17 and 21-23 are currently pending in the application of which claims 1, 14 and 21 are independent. Claims 1-17 and 21-23 were rejected. Claims 18-20 and 24-26 were previously canceled.

By virtue of the amendments above, claims 1, 7, 14 and 25 have been amended.

No new matter has been introduced by way of the amendments above. Entry thereof is therefore respectfully requested.

Summary of the Office Action

Claims 1-17 and 21-23 are rejected under 35 U.S.C. § 112 second paragraph as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-17 and 21-23 were rejected under 35 U.S.C. § 101 because the claimed invention is allegedly directed to non-statutory subject matter.

Claims 1, 2, 7, 9-17 and 21-23 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Andrews et al. (U.S. Patent Application No. 7,020,698), hereinafter "Andrews" in view of Davis et al. (U.S. Patent Application Publication No. 2005/0288031), hereinafter "Davis".

Claims 3-6 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Andrews in view of Davis, further in view of Harvey et al. (U.S. Patent Application Publication No. 2004/0054807), hereinafter “Harvey”.

The aforementioned rejections are respectfully traversed for at least the reasons set forth below.

Claim Rejections Under 35 U.S.C. § 112

Claims 1-17 and 21-23 are rejected under 35 U.S.C. § 112 second paragraph as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. These rejections are respectfully traversed.

Regarding independent claims 1, 14 and 21, the Examiner alleges “comparing distance from each of the first node” implies there is more than one first node. Thus, the Examiner concludes that such a recitation makes the claim ambiguous and it is unclear what is meant by “the selection is made based on comparing distances from each of the first node and the plurality of nodes to each one of a plurality of landmark nodes”.

Claims 1, 14 and 21 have been amended to recite, “wherein the selection is made based on comparing a distance[[s]] from ~~each of the~~ first node and a distance from each node of the plurality of nodes to each one of a plurality of global landmark nodes.” Thus, it is clear a single first node is claimed, and the rejection is believed to be overcome.

As to claim 14, the preamble recites “A node in a network comprising”. The Examiner asserts that the means for selecting, means for applying and means for identifying could be just software means system or apparatus claims should always claim structure or hardware that performs the function. The Examiner failed to appropriately apply 35 U.S.C. §

112, sixth paragraph, to claim 14. 35 U.S.C. § 112 sixth paragraph, states that a claim limitation expressed in means-plus-function language "shall be construed to cover the corresponding structure described in the specification and equivalents thereof". Thus, claim 14, appropriately reciting means-plus-function claim language, invokes 35 U.S.C. § 112, sixth paragraph and therefore should not recite structure in the claim. Furthermore, hardware for running software is disclosed in the specification.

Therefore, it is respectfully requested that this rejection be withdrawn for claims 1-17 and 21-23.

Claim Rejections Under 35 U.S.C. § 101

Claims 1-17 and 21-23 were rejected under 35 U.S.C. § 101 because the claimed invention is allegedly directed to non-statutory subject matter. This rejection is respectfully traversed.

Independent claim 1 was rejected under 35 U.S.C. § 101 because the claimed invention is directed to a method but allegedly does not require the method be performed by a particular machine or does not transform a particular article. This rejection is respectfully traversed. In light of the amendment to independent claim 1, which now recites a particular machine, i.e. "a processor", Applicants submit the claim recites statutory subject matter.

Independent claim 14 recites "A node in a network comprising". The Examiner asserts that the means for selecting, means for applying and means for identifying could be just software means system and thus is software per se. The Examiner failed to appropriately apply 35 U.S.C. § 112, sixth paragraph, to claim 14. 35 U.S.C. § 112, sixth paragraph, states that a claim limitation expressed in means-plus-function language "shall be construed to

cover the corresponding structure described in the specification and equivalents thereof”.

Thus, claim 14, appropriately reciting means-plus-function claim language, invokes 35 U.S.C. § 112, sixth paragraph and therefore should not recite structure in the claim.

Therefore, it is respectfully requested that this rejection be withdrawn.

Independent claim 21 has been amended to recite a “non-transitory” computer-readable medium. In light of the amendment to claim 21, it is respectfully requested that this rejection be withdrawn.

Thus, it is respectfully requested that this rejection be withdrawn for independent claims 1, 14 and 21 and the claims that depend therefrom.

Claim Rejections Under 35 U.S.C. § 103(a)

The test for determining if a claim is rendered obvious by one or more references for purposes of a rejection under 35 U.S.C. § 103 is set forth in *KSR International Co. v. Teleflex Inc.*, 550 U.S.398, 82 USPQ2d 1385 (2007):

“Under §103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.” Quoting *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1 (1966).

As set forth in MPEP 2143.03, to ascertain the differences between the prior art and the claims at issue, “[a]ll claim limitations must be considered” because “all words in a claim must be considered in judging the patentability of that claim against the prior art.” *In re Wilson*, 424 F.2d 1382, 1385. According to the Examination Guidelines for Determining

Obviousness Under 35 U.S.C. 103 in view of *KSR International Co. v. Teleflex Inc.*, Federal Register, Vol. 72, No. 195, 57526, 57529 (October 10, 2007), once the *Graham* factual inquiries are resolved, there must be a determination of whether the claimed invention would have been obvious to one of ordinary skill in the art based on any one of the following proper rationales:

(A) Combining prior art elements according to known methods to yield predictable results; (B) Simple substitution of one known element for another to obtain predictable results; (C) Use of known technique to improve similar devices (methods, or products) in the same way; (D) Applying a known technique to a known device (method, or product) ready for improvement to yield predictable results; (E) “Obvious to try”—choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success; (F) Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations would have been predictable to one of ordinary skill in the art; (G) Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention. *KSR International Co. v. Teleflex Inc.*, 550 U.S.398, 82 USPQ2d 1385 (2007).

Furthermore, as set forth in *KSR International Co. v. Teleflex Inc.*, quoting from *In re Kahn*, 441 F.3d 977, 988 (CA Fed. 2006), “[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasonings with some rational underpinning to support the legal conclusion of obviousness.”

Therefore, if the above-identified criteria and rationales are not met, then the cited reference(s) fails to render obvious the claimed invention and, thus, the claimed invention is distinguishable over the cited reference(s).

- Claims 1, 2, 7, 9-17 and 21-23

Claims 1, 2, 7, 9-17 and 21-23 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Andrews in view of Davis. This rejection is respectfully traversed.

○ Independent claims 1, 14 and 21

Independent claim 1 recites, *inter alia*,

selecting a set of candidate nodes from a plurality of nodes based on location information for the candidate nodes and the first node, wherein the selection is made based on comparing a distance from the first node and a distance from each node of the plurality of nodes to each one of a plurality of global landmark nodes;

applying a clustering algorithm to the location information for the candidate nodes and the first node; and
identifying a subset of the set of candidate nodes closest to the first node based on results of applying the clustering algorithm.

Independent claims 14 and 21 recite similar features.

In setting forth the rejection to claim 1, the Examiner maintains the assertion that Andrews teaches or suggests “selecting a set of candidate nodes from a plurality of nodes based on location information for the candidate nodes and the first node, wherein the selection is made based on comparing a distance from the first node and a distance from each node of the plurality of nodes to each one of a plurality of global landmark nodes”. *Office Action*, page 5. However, the Examiner does not provide a response to the arguments presented in the Appeal Brief submitted on September 9, 2009, against the application of Andrews to this feature.

More specifically, the Final Office Action dated April 16, 2009, asserts the creation of a cluster based on a distance and selection of a content server based on distance from the cluster to the server is equivalent to “selecting a set of candidate nodes from a plurality of nodes based on location information for the candidate nodes and the first node, wherein the

selection is made based on comparing a distance from the first node and a distance from each node of the plurality of nodes to each one of a plurality of global landmark nodes”.

Andrews discloses a client 52 making a DNS request to a local DNS server. The request is sent to redirection server 56 and the redirection server 56 sends an IP address of a content server to the client 52. Thus, the rejection is asserting the client 52 is the claimed first node of Andrews, since claim 1 recites identifying at least one closest node to the first node.

Andrews further discloses each content server includes monitoring software that periodically collects distance information for clients communicating with the server. *Andrews*, column 6, line 59-column 6, line 6. In Andrews, the distance information is sent to the redirection server 56 and the clustering/mapping software 57 in the redirection server 56 determines clusters of clients using the distance information. Then, the clustering/mapping software 57 estimates network distance from each client cluster to each server.

The creation of clusters in Andrews comprises determining distances between the content servers and the clients communicating with the servers. The Final Office Action failed to indicate the specific features of Andrews being relied upon as teachings of the claimed first node, plurality and the global landmark nodes. As a result, the Applicants are left to speculate how Andrews is being applied to this feature. Thus, it is assumed that the clients in Andrews are the claimed first node and the plurality of nodes and the content servers of Andrews are the claimed global landmark nodes, and therefore Andrews discloses “comparing a distance from the first node and a distance from each node of the plurality of nodes to each one of a plurality of global landmark nodes”.

Based on this interpretation of Andrews, Andrews clearly fails to teach “selecting a set of candidate nodes from a plurality of nodes based on location information for the candidate nodes and the first node”. Because Andrews selects a content server closest to client 52 bases on distance information, the Final Office Action interprets the claimed candidate nodes as the content servers of Andrews. However, as described above, the Final Office Action must also be asserting the claimed plurality of nodes are the clients of Andrews. Thus, Andrews fails to teach “selecting a set of candidate nodes from a plurality of nodes based on location information for the candidate nodes and the first node”, because the content servers of Andrews (i.e. the claimed candidate nodes) are not selected from the client nodes of Andrews (i.e. the claimed plurality of nodes). The client nodes are not content servers in Andrews, so the client nodes are not selected from the content servers.

Moreover, the Examiner admits that Andrews fails to explicitly teach “applying a clustering algorithm to the location information for the candidate nodes and the first node; and identifying a subset of the set of candidate nodes closest to the first node based on results of applying the clustering algorithm”. *Office Action*, page 5. Thus, the Office Action, on page 6, attempts to rely on Davis to teach these features. However, while Davis discloses a clustering algorithm, it is clear that the clustering algorithm of Davis cannot be construed as to be equivalent to the clustering algorithm of the claimed invention. The clustering algorithm of the claimed invention is applied to location information *for the candidate nodes and the first node*. The clustering algorithm in Davis, on the other hand, is simply applied to “all the nodes”. Davis, para. [0081]. Furthermore, the clustering algorithm of Davis does not identify a subset *of the candidate nodes*, since it is applied to “all the nodes”. Therefore, Davis clearly fails to teach or suggest “applying a clustering algorithm to the location

information for the candidate nodes and the first node; and identifying a subset of the set of candidate nodes closest to the first node based on results of applying the clustering algorithm”.

Accordingly, even assuming for the sake of argument that one of ordinary skill in the art were somehow motivated to combine Andrews and Davis as suggested by the Office Action, the proposed combination would still fail to disclose each and every the claimed invention as set forth in independent claim 1, as well as independent claims 14 and 21. For at least the foregoing reasons, the Office Action has therefore failed to establish that independent claims 1, 14 and 21 are *prima facie* obvious in view of the proposed combination of these references. The Examiner is thus respectfully requested to withdraw the rejection of independent claims 1, 14 and 21, and the claims that depend therefrom and to allow all of these claims.

o Dependent claims 2, 7, 9-13, 15-17, 22 and 23

Dependent claims 2, 7, 9-13, 15-17, 22 and 23 are dependent from one of independent claims 1, 14 and 21. Thus, they are also believed to be allowable over the cited documents of record for at least the same reasons as set forth to independent claims 1, 14 and 21 above.

In view of the foregoing, it is therefore respectfully requested that the rejection of claims 2, 7, 9-13, 15-17, 22 and 23 be withdrawn, and these dependent claims be allowed.

- Claims 3-6

Claims 3-6 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Andrews in view of Davis, further in view of Harvey. This rejection is respectfully traversed.

○ Dependent claims 3-6

Dependent claims 3-6 are dependent from independent claim 1. Thus, they are also believed to be allowable over the cited documents of record for at least the same reasons as set forth to independent claim 1 above.

In view of the foregoing, it is therefore respectfully requested that the rejection of claims 3-6 be withdrawn, and these dependent claims be allowed.

Claim 8

The Examiner has not provided an art rejection against claim 8, as indicated on page 13 of the Office Action. Claim 8 was simply rejected under 35 U.S.C. 101. Because the rejection under 35 U.S.C. 101 has been resolved above, it is respectfully submitted that claim 8 should be indicated allowable.

Conclusion

In light of the foregoing, withdrawal of the rejections of record and allowance of this application are earnestly solicited. Should the Examiner believe that a telephone conference with the undersigned would assist in resolving any issues pertaining to the allowability of the above-identified application, please contact the undersigned at the telephone number listed below. Please grant any required extensions of time and charge any fees due in connection with this request to Deposit Account No. 08-2025.

Respectfully submitted,

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